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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/087,784      | 03/05/2002  | Kimio Tatsuno        | 520.41386X00        | 8829             |

20457 7590 08/14/2003

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EXAMINER

SCOTT JR, LEON

ART UNIT

PAPER NUMBER

2828

DATE MAILED: 08/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

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**Office Action Summary**

Application N .

10/087,784

Applicant(s)

TATSUNO ET AL.

Examin r

Leon Scott, Jr.

Art Unit

2828

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

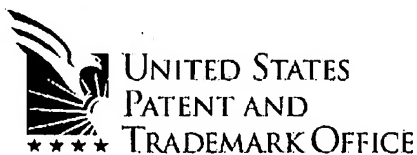
- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

  
 Leon Scott, Jr.  
 Primary Examiner

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**The following is a quotation of the second paragraph of 35 U.S.C. 112:**

**The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.**

**Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

**First it is pointed out to applicants that *some* of the rejections cited below have their basis in an *improper use of idiomatic(English) expressions*, thereby rendering the claims indefinite. Applicants are hereby advised that should this problem not be addressed, it may result in claims which can not be properly examined and/or searched.**

**In line 2 of claim 2 how is the light from the light source made to pass through an etalon as a first ray bundle, no structure sufficient to produce a *ray bundle* has been recited; claim 1 is indefinite and incomplete. Line 2 of claim 1 expresses a desired result while failing to recite the structure and/or means-plus-function necessary to produce the light from the laser source; claim 1 is indefinite and incomplete. In line 4 of claim 1 it is not clear what the *function* of the first photo-detection means is, thus the format of the photo-detection means does not conform with the *means-plus-function* format of para. 6 and is this indefinite and incomplete. The second photo-detection means in line 6 of claim 1 may be criticized in a like manner as the first ph to-detection means. In line 5 of claim 1 it is assumed that the at least the other part of the outgoing light is the remaining part of the outgoing**

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light. It is not clear how the light is guided to a second photo-detection means as a second ray bundle; and since no structure sufficient to produce a ray bundle or guided light has been recited; claim 1 is indefinite and incomplete. In lines 8 and 9 of claim 1 nothing has been recited which will maintain the oscillating frequency at a specific value. What structure does this; claim 1 is indefinite and incomplete. The recitation on the basis of a differential signal is indefinite and incomplete since it is not clear what the structure is that produces said signal. It is not clear in lines 12 and 13 of claim 1 whether the two plate materials of the etalon are made of the same or different materials, further how they are made; claim 1 is indefinite and incomplete. In : lines 14 and 15 of claim 1 and lines 3 and 4 of claims 3 and 4 what is the optical characteristic that transmits the ray bundle; further it is not clear that any and all characteristics can transmit, much less transmit a ray bundle; claims 1,3 and 4 are indefinite and incomplete. Lines 16-18 of claim 1 are confusing. Lines 18-21 are alternative in scope in that the embodiments claimed vary the scope of the invention. It is not clear within the context of claim language in line 26 of claim 1 how the inboard beam structure connectively relates to the device as a whole; claim 1 is indefinite and incomplete. In lines 30 and 31 of claim 1 it is not clear if the solid material of the media plate refers to the first or the second media plates or both; further the recitation the media plate is made of is indefinite in that made of is a method limitation, thus it is not clear what applicant is relying upon to carry the claim the method or apparatus. In line 2 of claims 3 and 4 the recitation the structure lacks a clear antecedent basis. In line 5 of claim 1 and throughout claim 1 use of the term ends is not clear. The recitations: the multiple interference region in lines 9 and 10 of claim 1 and line 4 of claim 6; the multiple interference regions in lines 10 and 11 of claim 4; the semiconductor laser in line 2 of claims 9 and 12; and the condensing lens in lines 2 and 3 of claim 11 all lack a clear antecedent basis. In line 5 and 6 of claim 8, it is not clear within the context of claim language how the ray bundle is made to pass through the etalon to be guided; what is

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th structure that perform the function ; claim 8 is indefinite and incomplete. In line 3 of claim 9 what is the structure which *condenses* the outgoing light; claim 9 is indefinite and incomplete. In line 3 of claim 13 the recitation *capable of* is indefinite.

Colbourne et al (5,798,859) is cited for its teaching of a method and device for wavelength locking.

Kleinschmidt et al (6,553,050) is cited for its teaching of a laser having an output coupling interferometer.

Watterson et al (6,526,079) is cited for its teaching of a single etalon optical wavelength reference device.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leon Scott, Jr. whose telephone number is 703-308-4884. The examiner can normally be reached on Monday - Friday, 6:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul P. Ip can be reached on (703)308-3098. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7721 for regular communications and 703-308-2864 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-3431.

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**Leon Scott, Jr.**  
**Primary Examiner**  
**Art Unit 2828**

**lsjr**  
**August 6, 2003**